



Cope with power cuts under decarbonization in China

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https://www.eia.gov/outlooks/ieo/workshops/clean_power/index.php

EIA Clean Power Investment Workshop | June 23, 2022

Credit: imago/Xinhua

2021 Power Cuts and Causes

- In Dec 2020 and again in September 2021, power cuts occurred in parts of China.
- The events are reported to have multiple causes:
 - Thermal coal shortage, high coal prices, and the lack of flexibility of wholesale electricity prices.
 - Rapid growth in electricity demand relative to power supply. Financial losses at thermal plants led directly to curtailed output in regions with high coal prices.
 - Lack of flexible power generation capacity and peak resource hampered the ability of the power system to deal with short-term power crunch.
 - Load management to meet government mandatory dual energy control targets.

New Measures Adopted to Address the Problem

- Immediate steps to ease restrictions on coal production and coal power generation.
- Increase renewable energy consumption.
- Address geographical mismatch between supply and demand that leads to difficulty absorbing renewable energy locally.
- Enhance the flexibility of the power system.
- Further reform of the electricity market.

Important to Make Further Policy and Market Changes

- Speed up the development and enhance harmonization of spot markets.
- Strengthen the connection and coordination of different market systems.
- Continue to reform electricity tariffs in the non-business sector.
- Focus on diversified non-coal resources when increasing power system flexibility.

PV in deserts



100MW solar thermal power plant in northwestern China. AFP/Getty



THANK YOU!

PV over highway



Credit: toutiao.com

PV + indoor farming



https://www.alibaba.com/product-detail/2020-Newly-Designed-Solar-Greenhouse-Panel_1600150562768.htm